

CLAIMS

1. A rake comprising a vertical frame (10) formed by two vertical uprights (12, 13) on wheels (14, 15), said uprights being connected at the top by a basically horizontal cross-member (11), each of said uprights being connected, by means of a joint (16, 17), to a first working arm (21, 22), which is also basically horizontal and carries a plurality of rake wheels (23, 24) uniformly distributed according to the length of said working arms, the horizontal cross-member being connected to a transverse drawbar (20), which is roughly horizontal, connected in turn to said first horizontal arms by means of a pantograph formed by two pairs of second arms for actuation, the arms (24, 24') of a first pair being connected each by a first end (E7, E8) to the drawbar (20) and by a second end (E5, E6) to a terminal point of said first horizontal arms (21, 22), whilst the arms (23, 23') of the second pair are each connected by one end (E1, E2) to the drawbar and by the other end (E3, E4) to an intermediate point of one of the arms of said first pair, the ends (E1, E2, E7, E8) of the arms of said first and second pairs being slidable along the drawbar so as to move said first horizontal arms (21, 22) from a resting position parallel to the drawbar and near thereto, to a working position, in which the arms are divaricated with respect to the drawbar itself, said rake being characterised in that: (i) one of said first working arms (21, 22) is hinged to one of said uprights (12, 13) of the vertical frame (10) in a position corresponding to one of its own ends, whilst the other working arm is longer than the first one and is hinged to the other vertical upright in a position corresponding to an intermediate point of its own length, thus projecting from the upright beyond the point of hinging of the first arm, said first arms, when in the working position, forming, in horizontal projection, a Y; (ii) said vertical uprights (12, 13) of the frame (10) are each provided with a means of linear translation (31, 32) capable of bringing the ends of said first arms that are close to the frame itself closer to one another or moving them away from one another, thus modifying the distance (d); (iii) said first horizontal working arms (21, 22) carrying the rake wheels (23, 24) are formed by the assembly of a number of modules that can vary as desired; (iv)

said connecting joints (16, 17) between vertical uprights (12, 13) of the frame (10) and horizontal arms (21, 22) carrying the rake wheels (23, 24) are Oldham couplings, capable of enabling movements of the arms (21, 22) in vertical and horizontal directions; and (v) said drawbar (20) carries means (33) for controlling the movement of said first horizontal arms, by means of said pantograph, from the resting position to the working position, and vice versa.

2. The rake according to Claim 1, in which the rake wheels (23, 24) set on the working arm that is longer than the other and projecting beyond said horizontal cross-member (11) are arranged in front of the corresponding ones set on the shorter arm, so as to be superposed on the latter.
3. The rake according to Claim 2, in which said superposition is at least partial.
4. The rake according to Claim 1, in which said means (31, 32) are formed by a hydraulic-control assembly.
5. The rake according to Claim 1, in which said means (31, 32) are formed by a mechanical-control assembly.
6. The rake according to Claim 1, in which said means (33) for controlling the movement of said first working arms (21, 22) are formed by a hydraulic-control assembly.